CLAIMS

1 A method of encoding a sequence of pictures, a picture being divided into blocks of data, said encoding method comprising the steps of:

- computing a residual error block from a difference between a current block contained in a current picture and a candidate area using a prediction function,
- computing an entropy of the residual error block,
- computing an overall error between said current block and said candidate area,
- estimating a power consumption of a video processing device adapted to implement said prediction function,
- computing a rate-distortion value on the basis of the entropy, the overall error and the estimated power consumption of the video processing device,
- applying the preceding steps to a set of candidate areas using a set of prediction functions in order to select a prediction function according to the rate-distortion value.

2 A video encoding method as claimed in claim 1, wherein the estimation step is able to use the power consumption of a video decoder for a prediction function of the set.

3 A video encoding method as claimed in claim 1, wherein the estimation step is able to compute, for a given number of pictures, the power-rate-distortion value of the different prediction functions of the set and to select, for the encoding of following pictures, the prediction functions that minimize the power-rate-distortion value.

4 A video encoding method as claimed in claim 1, wherein the estimation step is able to estimate the power consumption of the video processing device from computational and transfer parameters of the prediction functions.

5 A video encoding method as claimed in claim 4, wherein the estimation step is able to estimate the power consumption of the video processing device from technical characteristics of the video processing device.

6 A video encoding method as claimed in claim 1, wherein the rate-distortion value depends on a product of the estimated power consumption and a weighting factor, said weighting factor being dependent on a power supply level of the video processing device.

7 A video encoder for encoding a sequence of pictures, a picture being divided into blocks of data, said video encoder comprising means for implementing the steps of the video encoding method as claimed in claim 1.

8 A handheld apparatus comprising a video encoder as claimed in claim 7, and a power supply for supplying said video encoder.

9 A computer program product comprising program instructions for implementing, when said program is executed by a processor, a video encoding method as claimed in a claim 1.